

REMARKS

Applicants have studied the Office Action mailed May 4, 2005 and have made amendments to the claims. It is submitted that the application, as amended, is in condition for allowance. By virtue of this amendment, claims 1-36 are pending. Reconsideration and allowance of the pending claims in view of the above amendments and the following remarks are respectfully requested.

Objection to Claims Because of Informalities

(1-4) In a previous Response, mailed February 2, 2005, to a previous Office Action, mailed July 14, 2004, the Applicants amended claims 22 and 30 but incorrectly indicated "Original" as the status identifiers of these two claims. By this Amendment, the Applicants have changed the status identifiers of claims 22 and 30 to "Previously Presented".

In the previous Office Action, mailed July 14, 2004, the Examiner objected to claim 14 because of two informalities. In the previous Response thereto, mailed February 2, 2005, the Applicants inadvertently did not respond to this objection. By this Amendment, claim 14 is amended to overcome the Examiner's objection. Accordingly, the Applicants respectfully submit, that the Examiner's objection to claim 14 should be withdrawn.

Response to Arguments

(5) The present invention solves the problem of illicit access of data in a protected memory through exploitation of dump mode. The present invention permits access of the data by a local processor with an electronic device, such as a microcontroller or microprocessor for execution and the testing of the data in memory to ensure its validity. Unlike prior art systems that make data vulnerable to access during dump mode by using checksums only on small selectable portions of memory, the present invention requires a predetermined quantity of data before the data is exposed outside the device. Further, unlike prior art systems, the access to intermediate validity data is controlled during device reset. The present invention includes validation logic operative in a first mode, for checking the validity of the data and for producing a validity signal, such as a checksum, for determining whether that data is valid. In order to prevent access to

intermediate validity calculations that may allow an individual to gain knowledge of the protected data, a validity signal output control logic is provided for inhibiting output of the validity signal to outside of the device until the validity of a predetermined quantity of the protected data has been checked. This predetermined quantity is made sufficiently large and preferably is equal to the all the protected data.

Rejection of Claims Under 35 U.S.C. §102(b)

(6-7) The Examiner rejected claims 1-8, 16-27, 32 and 35-36 under 35 U.S.C. § 102(b) as being anticipated by Milius (U.S. Patent No. 5,860,099).

The Examiner cited 35 U.S.C. § 102(b), and a proper rejection requires that a single reference teach, i.e., identically describe, each and every element of the rejected claims as being anticipated by Milius. See MPEP §2131, “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” [Emphasis Added] Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the . . . claim.”

By this amendment, independent claims 1 and 20 have been carefully amended to distinguish over Milius. The changes find support in the specification as originally filed, including, in particular, at page 2, lines 3-12; at page 6, line 32 to page 7, line 2; and at page 11, lines 12-18. The following elements in amended claim 1 are not taught or disclosed by Milius:

“validation logic, operative in a first mode, for checking the validity of said protected data and for producing a validity signal to determine whether said protected data is valid, said validation logic being accessible from the outside of the electronic device for setting the electronic device into said first mode;”

“a system reset function for resetting the system including at least said local processor; and

“a device reset function for resetting said validation logic in response to said system being reset while the electronic device is in said first mode.”

Milius does not teach or disclose accessing validation logic from outside of the electronic device. Accordingly, the present invention distinguishes over Milius for at least the foregoing reason. The issues regarding claim 20 are similar to the issues regarding claim 1; therefore claim 20 will not be separately addressed.

Claims 7-8, 16-19, 21-27, 32 and 35-36 depend from independent claims 1 and 20, respectively, and because dependent claims contain all the limitations of the independent claims, claims 7-8, 16-19, 21-27, 32 and 35-36 distinguish over Milius, as well. The Applicants respectfully submit that the Examiner's rejection under 35 U.S.C. § 102(b) has been overcome.

Rejection of Claims Under 35 U.S.C. §103(a)

(8-9) The Examiner rejected claims 9-10, 12, 14-15, 28-29, 31 and 33-34 under 35 U.S.C. § 103(a) as being unpatentable over Milius in view of Noll (U.S. Pat. No. 6,185,696).

The Examiner correctly states that Milius does not disclose that the device comprises a device reset function for resetting the checking means in response to a device reset in the first mode, and then the Examiner combines Milius with Noll. Applicants make no statement whether such combination is even proper. Noll selectively switches between memories using their chip set, depending upon a specific mode linked with the reset. Noll checks the integrity of a memory contents and provides the result of a comparison. Noll deactivates a selected memory chip only when this memory is not needed any longer. In Noll, the reset is used to validate a primary memory, and not to protect the contents of the memory or to protect an intermediate CRC test result, such as in the Applicants' invention.

Where the prior art points away from the combination, modification or substitution of which is the premises of the PTO's alleged *prima facie* case of obviousness, there likewise is a built-in traversal of the rejection. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). The Federal Circuit held a reference did not render the claimed combination *prima facie* obvious because, *inter alia*, the Examiner ignored material, claimed temperature limitations that were absent from the reference. See MPEP §2143.01.

Independent claims 1 and 20 have been carefully amended to distinguish over Milius in view of Noll. Claims 7-8, 16-19, 21-27, 32 and 35-36 depend from independent claims 1 and 20, respectively, and because dependent claims contain all the limitations of the independent claims,

claims 7-8, 16-19, 21-27, 32 and 35-36 also distinguish over Milios in view of Noll. The Applicants believe that the independent claims 9-10, 12, 14-15, 28-29, 31 and 33-34 of the present invention distinguishes over Milios taken alone and/or in view of Noll for at least the foregoing reason. Accordingly, the Applicants respectfully submit that the Examiner's rejection under 35 U.S.C. § 103(a) has been overcome.

Rejection of Claims Under 35 U.S.C. §103(a)

(10) The Examiner rejected claims 11 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Milios in view of Noll, and further in view of Jablon (U.S. Pat. No. 5,421,006).

The Examiner correctly states that Milios and Noll do not disclose that the device reset function comprises latching means for temporarily latching a logic state indicating the presence of the first mode and gating means for transferring the device reset signal to a reset input of the validation logic only when said logic state is present in the latching means, the latching means temporarily maintaining said gating means enabled after a disappearance of the rest signal logic state. Then, the Examiner combines Milios with Noll and Jablon. Applicants make no statement whether such combination is even proper.

Milios taken alone and/or in view of Noll and Jablon specifically teaches away by using protected data that is validated. Where the prior art points away from the combination, modification or substitution of which is the premises of the PTO's alleged *prima facie* case of obviousness, there likewise is a built-in traversal of the rejection. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). The Federal Circuit held a reference did not render the claimed combination *prima facie* obvious because, *inter alia*, the Examiner ignored material, claimed temperature limitations that were absent from the reference. See MPEP §2143.01.

Independent claims 1 and 20 have been carefully amended to distinguish over Milios in view of Noll and Jablon. Claims 11 and 30 depend from independent claims 1 and 20, respectively, and because dependent claims contain all the limitations of the independent claims, claims 11 and 30 also distinguish over Milios in view of Noll and Jablon. The Applicants believe that claims 11 and 30 of the present invention distinguish over Milios in view of Noll and Jablon for at least the foregoing reason. Accordingly, the Applicants respectfully submit that the Examiner's rejection of claims 11 and 30 under 35 U.S.C. § 103(a) has been overcome.

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Rejection of Claims Under 35 U.S.C. §103(a)

(11) The Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Milios in view of Tanenbaum ("Structured Computer Organization").

The Examiner correctly states that Milios does not disclose explicitly that the validity signal output control logic is implemented in hardware. Then, the Examiner combines Milios with Tanenbaum. Applicants make no statement whether such combination is even proper.

Where the prior art points away from the combination, modification or substitution of which is the premises of the PTO's alleged *prima facie* case of obviousness, there likewise is a built-in traversal of the rejection. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). The Federal Circuit held a reference did not render the claimed combination *prima facie* obvious because, *inter alia*, the Examiner ignored material, claimed temperature limitations that were absent from the reference. See MPEP §2143.01.

Independent claim 1 has been carefully amended to distinguish over Milios in view of Tanenbaum. Claim 13 depend from independent claim 1, and because dependent claims contain all the limitations of the independent claims, claim 13 also distinguish over Milios in view of Tanenbaum. The Applicants believe that claim 13 of the present invention distinguishes over Milios in view of Tanenbaum for at least the foregoing reason. Accordingly, the Applicants respectfully submit that the Examiner's rejection of claim 13 under 35 U.S.C. § 103(a) has been overcome.

CONCLUSION

(12) In this Response, Applicants have amended certain claims. In light of the Office Action, Applicants believe these amendments serve a useful clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents.

Applicants acknowledge the continuing duty of candor and good faith to disclosure of information known to be material to the examination of this application. In accordance with 37 CFR §1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment are limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and their attorneys.

Applicants respectfully submit that all of the grounds for rejection stated in the Examiner's Office Action have been overcome, and that all claims in the application are allowable. No new matter has been added. It is believed that the application is now in condition for allowance, which allowance is respectfully requested.

PLEASE CALL the undersigned if that would expedite the prosecution of this application.

Respectfully submitted,

Date: August 4, 2005

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